

DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

ELECTRONICS TECHNOLOGY OFFICE (ETO)

PLANNED PROCUREMENTS

May 1998

PROGRAM DESCRIPTION	FUNDING	SCHEDULE	PROGRAM MGR
Semiconductor Technology Focus Center Research Program (FCRP): This program will address semiconductor technology research and development by utilizing the US research university system to work on long-range, innovative research. Only US universities will be considered for funding. Research funded under the FCRP is generally high-risk, high-payback, long-term and targeted to silicon integrated circuit (IC) technology. There are two areas of interest in the initial solicitation: (1) design and test; and (2) interconnect. This program is jointly funded and managed with the domestic Semiconductor Industry through the Microelectronics Advanced Research Corp (MARCO). This program is funded through the DDR&E Government-Industry Co-Sponsorship of University Research (GICUR) Initiative.	\$45M	RA 98-23 Proposals due 5/8/98 Total program: 3-5 years	Dr. Daniel J. Radack ETO
Heat Removal by Thermo-Integrated Circuits (HERETIC): This is a new program beginning in FY99 to develop and integrate micro-scale, solid-state, heat-removal devices with dense, high-power electronics and photonics in order to <i>short circuit</i> the thermal resistance between these sources and the heat sink. One of the main program goals is to use this technology for thermal management to significantly reduce the wall-socket power required to remove a unit amount of heat. Alternatively, it could reduce the semiconductor junction temperature well below what it would be with traditional thermal-management technology. The HERETIC paradigm aims to endow electronic and optoelectronic systems with distributed, active, and adaptive heat removal devices.	\$20M	BAA 4QFY98 Total program: 3 years	Dr. Elias Towe Dr. Elliott Brown ETO